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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,437	03/30/2004	Fumiyasu Utsunomiya	S004-5254	3369
40627	7590	04/24/2006	EXAMINER	
ADAMS & WILKS 17 BATTERY PLACE SUITE 1231 NEW YORK, NY 10004				DANG, ROBERT TRONG
				ART UNIT      PAPER NUMBER
				2838

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/812,437	UTSUNOMIYA ET AL.	
	<b>Examiner</b> Robert T. Dang	<b>Art Unit</b> 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 30 March 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-13 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 30 March 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/30/2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-7, 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Odaohara (5784626).

As to claim 1, Odaohara discloses in figure 1, an electric equipment comprising: a first battery (10); an electric condenser (16) which has an internal resistance lower than that of the first battery (10) and which serves to accumulate therein an electric power of the first battery; charge control circuit (fig. 3) which controls a charge current originating from the electric power of the first battery (10) and caused to flow from the first battery to the electric condenser (16); and a load (PC) which is driven with the electric power accumulated in the electric condenser, wherein the charge control circuit controls the charge current in correspondence to a self-discharge rate of the first battery (see col. 6, lines 38-57).

As to claims 2-3 and 6-7, Odaohara discloses the claimed invention except for the voltage drop developed across the first battery falling within a range of 5-20% or 10-40% of a battery voltage when the first battery is in an open state. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the voltage drop developed across the first battery falling within a range of 5-20%

or 10-40% of a battery voltage when the first battery is in an open state since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

As to claim 5, Odaohara discloses in figure 1, a first battery; an electric condenser which has an internal resistance lower than that of the first battery (10) which serves to accumulate therein an electric power of the first battery (10); charge control circuit (fig. 3) which controls a charge current originating from the electric power of the first battery (10) and caused to flow from the first battery to the electric condenser (16); and a load (PC) which is driven with the electric power accumulated in the electric condenser, wherein the load is driven in a first operation mode (off) or a second operation mode (on) consuming more current than in the first operation mode, and wherein the charge control circuit charges the electric condenser in a first charge control mode with a charge current which is larger than a current consumed when the load is driven in the first operation mode, and is smaller than a current consumed when the load is driven in the second operation mode (see col. 6, lines 38-57).

As to claims 9-10, Odaohara discloses in figure 1, wherein the charge control circuit (fig. 3) charges the electric condenser (16) in a second charge control mode with a charge current equal to or larger than the current consumed when the load is driven in the second operation mode (on), and wherein when a quantity of accumulated electric power of the electric condenser exceeds a quantity of desired electric power, the electric condenser is charged in the first charge control mode, and when the quantity of

accumulated electric power of the electric condenser is equal to or less than the quantity of desired electric power, the electric condenser is charged in the second charge control mode (see col. 5, lines 24-35).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 8, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Odaohara (5784626) in view of Okuda (7023107).

As to claims 4,8, and 11-12, Odaohara discloses in all of the limitations discussed above in including a DC-DC converter (14); however, he does not disclose that the DC-DC converter is utilized for converting the electric power of the first battery into a conversion electric power having a different voltage, and wherein a quantity of the conversion electric power of the DC-DC converter is controlled to control the charge current. Okuda discloses in his invention where the DC-DC converter is used for converting the electric power of the first battery into a conversion electric power having a different voltage, and wherein a quantity of the conversion electric power of the DC-DC converter is controlled to control the charge current; (see col. 2, lines 29-52). It would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify the device and add a DC-DC converter to serve the aforementioned purpose in order effectively supply adequate power to the load.

As to claim 13, Odaohara discloses the claimed invention except for the electrical condenser being charged with a second DC-DC converter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the second DC-DC converter, since it has been held that the mere duplication of the essential working parts of a device only involves routine skill in the art. *St. Regis Paper Co. V. Bemis Co.*, 193 USPQ 8.

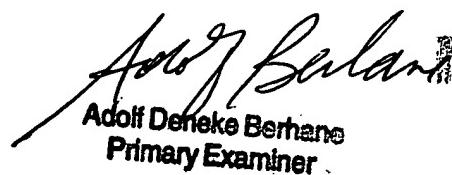
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert T. Dang whose telephone number is 571-272-8326. The examiner can normally be reached on M-F, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl D. Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RTD



Adolf Deneke Berhane  
Primary Examiner